

**REMARKS**

Claims 1-8 and 15-21 are pending in this application. By this Amendment, Applicant amends claims 1, 15, 16, 19, and 21. Support for the amendments may be found in at least paragraphs [0050] - [0052], [0061], [0065], [0074] and [0078] of the specification. No new matter is added. Applicant respectfully requests reconsideration and prompt allowance of the claims at least in light of the following remarks.

Claims 1-8 are rejected under 35 U.S.C. §102(b) over U.S. Patent No. 6,536,880 to Takagi. Applicant respectfully traverses the rejection.

Takagi at least fails to disclose "one or more sintered members of the same residual stress characteristics as the individual electrodes," as recited in claims 1 and 8. The Office Action alleges that because the dummy electrodes 36' and drive electrodes 36 of Takagi "are both screen printed metals which are sintered onto the same piezoelectric sheet," they "have *substantially* the same residual stress characteristics" (Office Action, p. 12, emphasis in original).

However, even if based on the Office Action's unreasonably broad interpretation of the term "substantially," Takagi could be considered to disclose substantially the same residual stress characteristics, Takagi fails to disclose the same residual stress characteristics.

That is, as shown in FIG. 2 of Takagi, although the dummy electrodes 36' and the drive electrodes 36 might be considered rectangular, the respective rectangles are substantially differently shaped and substantially differently sized (i.e., the drive electrodes 36 are almost four times as long and half as wide as the dummy electrodes 36'), and are in a substantially different pattern. Thus, the dummy electrodes 36' of Takagi cannot have the same residual stress characteristics as the drive electrodes 36, even if they are both screen printed metals which are sintered onto the same piezoelectric sheet.

In this respect, it is Applicant's explicit position that the use of the term "the same," in the claims, is not intended to require strict numerical equality; but rather, is intended to encompass minor variations due to, for example, manufacturing tolerances and/or the properties of the materials used."

Because Takagi at least fails to disclose "one or more sintered members of the same residual stress characteristics as the individual electrodes," claims 1 and 8 are patentable over Takagi. Further, claims 2-7 are patentable for at least the reasons that claim 1 is patentable, as well as for the additional features they recite. Applicant respectfully requests withdrawal of the rejection.

Claims 15-19 are rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,266,964 (Takahashi). Applicant respectfully traverses the rejection.

In particular, Takashi at least fails to disclose "one or more sintered dummy electrodes, wherein the sintered dummy electrodes and the individual electrodes have substantially the same shape and the same size," as recited in claim 15. The Office Action alleges that the negative electrodes 42 of Takahashi are equivalent to what are now the claimed "sintered dummy electrodes." However, the negative electrodes 42 of Takahashi are working electrodes used to drive the piezoelectric ceramic layers 40 (C4/L39-68). Thus, the negative electrodes 42 of Takahashi cannot be considered equivalent to dummy electrodes.

Because Takashi at least fails to disclose "one or more sintered dummy electrodes, wherein the sintered dummy electrodes and the individual electrodes have substantially the same shape and the same size," claim 15 is patentable over Takahashi. Further, claims 16-19 are patentable for at least the reasons that claim 15 is patentable, as well as for the additional features they recite. Applicant respectfully requests withdrawal of the rejection.

Claims 20 and 21 are rejected under 35 U.S.C. §103(a) over Takahashi in view of U.S. Patent No. 6,174,051 (Sakaida). Applicant respectfully traverses the rejection.

In particular, the Office Action alleges that it would have been obvious to modify the device of Takahashi to include the alleged common electrode of Sakaida (see Office Action, p. 9). However, the skilled artisan would not have been motivated to make such a modification. Specifically, the device of Takahashi uses positive electrodes 44 and negative electrodes 42 to drive the piezoelectric ceramic layers 40 (C4/L39-68). The Office Action recognizes that Sakaida uses individual electrodes and a common electrode to drive the piezoelectric element. There would be no reason to add the common electrode of Sakaida to drive the piezoelectric ceramic layers 40 of Takahashi because it is already driven by the positive electrodes 44 and negative electrodes 42. Further, were the skilled artisan to have replaced either the positive electrodes 44 or negative electrodes 42 of Takahashi with the common electrode of Sakaida, then the resulting combination would no longer include structure equivalent to the claimed individual electrodes or sintered members.

Accordingly, the Office Action has failed to provide explicit "articulated reasoning with a rational underpinning" to support its legal conclusion of obviousness. *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350, slip op. at 14 (U.S. April 30, 2007), citing *In re Khan*, 441 F.3d 997, 998 (Fed. Cir. 2006). Applicant respectfully requests withdrawal of the rejection.

In view of at least the foregoing, Applicant respectfully submits that this application is in condition for allowance. Applicant earnestly solicits favorable reconsideration and prompt allowance of the pending claims.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, Applicant invites the Examiner to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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